Why Construction Science and Management?

The construction industry is the largest production industry in the U.S. with expenditures exceeding $750 billion per year. In fact, 6 percent of the population is directly employed in construction with another 6 percent employed in companies that support construction. The industry is characterized by rapid growth and continuous technological changes as new materials, building techniques and ever-sophisticated projects are designed and built. The key professional in this industry is the “constructor,” or construction manager who is the trained professional who manages a project from start to finish on time and within budget.

The Bureau of Labor Statistics states that due to the increasing complexity of construction projects, management-level positions within the construction industry should increase. This is due to sophisticated technology, proliferation of laws, such as building codes, that set standards for buildings and construction materials, worker safety, environmental protection and energy efficiency, along with an increasing need to replace or upgrade the country’s infrastructure, such as roads and bridges, utility transmission lines, pipelines and other projects.

Construction Science and Management is based on nationally recognized academic standards along with feedback from the department’s Construction Advisory Board. Typical topics covered in the degree include:

- Construction Materials and Processes
- Construction Project Management and Scheduling
- Residential Construction Systems
- Construction Contracts, Liabilities and Ethics
- Commercial Building Construction Systems
- Soils and Foundations
- Heavy, Civil and Highway Construction
- Environmentally Conscious Design and Construction
- Construction Estimation
- Architectural Design
- Mechanical, Electrical and Plumbing Systems
- Business Administration Minor

ACCE Accredited Program

The American Council for Construction Education (ACCE) is the body that accredits construction and construction management programs. The bachelor of science in Construction Science and Management is ACCE accredited. This accreditation guarantees that the construction program at Texas State University meets the high, nationally-recognized, academic standards set by ACCE. Also, students graduating from an accredited program have additional career and professional opportunities not available to students who graduate from non-accredited programs. The accreditation standards for ACCE may be found at http://www.acce-hq.org/ This program is only the third construction program to be accredited in the State of Texas.

Common Construction Careers

The bachelor of science in Construction Science and Management prepares students to pursue several careers in the construction industry, such as:

- Construction Managers
- Project Managers
- Schedulers
- Field Engineers
- General Contractors
- Office Engineers
- Estimators
- Home Builders
- Subcontractors
- Technical Sales
- Contractor Sales
- Material Suppliers
- Superintendents
- Code Inspectors
- Construction Insurance Sales
- Office Engineers
- Home Builders
- Construction Estimation
- Architectural Design
- Mechanical, Electrical and Plumbing Systems
- Business Administration Minor

Since 16 percent of the Gross National Product (GNP) is either directly or indirectly related to construction, the wide range of career opportunities for students is not hard to understand.

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Background on the Construction Program

The construction program began in 1984 and has since grown to more than 250 students. The program moved to the new RF Mitte Building in 2003. Students are taught by professors and instructors with specific background in the construction industry. Because of the high demand for construction majors, the program holds two Construction Job Fairs, usually in October and February. Local, state, national and international employers are present at these events. Also, all construction majors are required to serve an internship in their junior year, giving them real work experience before pursuing a career in the construction industry.

Mini in Business and Administration

• Accounting in Organizations and Society
• Legal Environment of Business
• Principles of Economics
• Management of Organizations
• E-Business
• Principles of Marketing

Faculty

The Department of Engineering Technology has 16 fulltime faculty members with six dedicated to construction. The faculty members have earned degrees from respected institutions of higher education in the United States and foreign countries that are considered leaders in a spectrum of technologies. The faculty size allows for a favorable student-faculty ratio and has built a strong reputation for dedicated teaching, research, advising, mentoring and career consulting. An open-door policy exists throughout the department.

Location

Texas State is located in San Marcos, Texas, at the edge of the Texas Hill Country. Its location on Interstate 35 approximately 30 miles south of Austin provides students opportunities in engineering technology-oriented research, internships and employment.

Admission to Texas State

For more information on Texas State and how to apply for admission, visit www.txstate.edu/prospective.html or contact the Office of Undergraduate Admissions at admissions@txstate.edu or 512.245.2364

Financial Aid and Scholarships

Texas State offers scholarships that are open to students of all majors. Visit www.finaid.txstate.edu or contact Financial Aid and Scholarships at finaid@txstate.edu or 512.245.2315. Departmental scholarships can be found at www.txstate.edu/technology/scholarships.

Pre-Construction Curriculum

All students desiring to enter the bachelor of science degree with a major in construction science management are required to complete a pre-construction curriculum consisting of 30 credit hours. This pre-construction curriculum requires prospective construction majors to complete the following courses, while maintaining a 2.5 major GPA in these classes with no grade less than a C.

• Introduction to the Construction and Concrete Industry
• Fundamentals of Architectural Problem Solving and Design
• Construction Materials and Processes
• Residential Construction Systems
• Pre-Calculus
• Elementary Statistics
• General Chemistry I
• General Physics I
• General Physics II

Construction Major Courses

• Intro to Construction Surveying and Site Layout
• Fundamentals of Architectural Problem Solving and Design
• Construction Materials and Processes
• Statics and Strength of Materials
• Structural Analysis
• Soils and Foundations
• Mechanical, Electrical and Plumbing Systems
• Advanced Architectural Design
• Environmentally Conscious Design and Construction
• Introduction to the Construction and Concrete Industry
• Residential Construction Systems
• Commercial Building Construction Systems
• Heavy, Civil and Highway Construction Systems
• Construction Contract Administration
• Construction Estimating
• Construction Project Management and Scheduling
• Construction Contracts, Liability and Ethics
• Industrial Safety
• Internship

Bachelor of Science

Major in Construction Science and Management (BS/CSMG/BUS)

The Bachelor of Science in Construction Science and Management (CSM) is a degree that includes an 18 hour business administration minor and an internship, which is served in a student's sophomore or junior year.

The program's curriculum was developed to comply with the American Council for Construction Education (ACCE) accreditation guidelines. These guidelines include five specific categories: • General Education • Mathematics and Science; • Business and Management • Construction Science and • Construction

Following is a listing of CSM courses, typically taken by construction majors. A complete list of required courses and their course descriptions can be found in the University Catalog.

Homecoming Tailgate - CSA/Alumni Washer Tournament

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